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# 9

SEQUENCE LISTING

FEB 27 2002

TECH CENTER 1600/2900

<110> Schmitz, et al.

<120> ANTIGEN BINDING FRAGMENTS SPECIFIC FOR DENDRITIC CELLS COMPOSITIONS AND METHODS OF USE THEREOF ANTIGENS RECOGNIZED THEREBY AND CELLS OBTAINED THEREBY

<130> 830003-2002.1

<140> 09/714,712

<141> 2000-11-15

<150> 60/165,555

<151> 1999-11-15

<160> 38

<170> PatentIn version 3.0

<210> 1

<211> 1312

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)..(1312)

<223> BDCA-2 cDNA sequence

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ttgaactcct ggctgaagc aatccgcca cctcagcctc ccaaagtgt gagattatag 180  
gcacgagcca ctacacctgg ccacaaaatt ctttaaagaa gccaatcca tctccctca 240  
agagccaagg ggccacctca cctcttgtt acagcagatc ctgcctccac agtcaccctg 300  
ctcccaagtg caacctctgt ctgacctgc atggtgtgcg gtgcctcct gcctcaggcc 360  
gcgaagaagg atctaagggc ttggcttgtt tgaaagaacc acaccccgaa agtaacatct 420  
ttggagaaag tgatacaaga gcttctgcac ccacctgata gaggaagtcc aaaggggtgtg 480  
cgcacacaca atggtgcctg aagaagagcc tcaagaccga gagaaaggac tctggtggtt 540  
ccagttgaag gtctggtcca tggcagtcgt atccatcttg ctctcagtg tctgtttcac 600  
tgtgagttct gtggtgcctc acaattttat gtatagcaaa actgtcaaga ggctgtccaa 660  
gttacgagag tatcaacagt atcatccaag cctgacctgc gtcattggaag gaaaggacat 720  
agaagattgg agctgctgcc caacccttg gacttcattt cagtctagtt gctactttat 780

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ttctactggg atgcaatctt ggactaagag tcaaaagaac tgttctgtga tgggggctga      840
tctggtggtg atcaacacca gggaagaaca ggatttcatc attcagaatc tgaaaagaaa      900
ttcttcttat tttctggggc tgtcagatcc agggggtcgg cgacattggc aatggggtga      960
ccagacacca tacaatgaaa atgtcacatt ctggcactca ggtgaacca ataacctga     1020
tgagcgttgt gcgataataa atttccgttc ttcagaagaa tggggctgga atgacattca     1080
ctgtcatgta cctcagaagt caatttgcaa gatgaagaag atctacatat aaatgaaata     1140
ttctccctgg aaatgtgttt gggttggcat ccaccgttgt agaaagctaa attgattttt     1200
taatttatgt gtaagttttg tacaaggaat gcccctaaaa tgtttcagca ggctgtcacc     1260
tattacactt atgatataat ccaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa           1312

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<210> 2
<211> 213
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(213)
<223> amino acid sequence of one of the isoforms of BDCA-2 with all six
      exons expressed

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Phe Gln Leu Lys Val Trp Ser Met Ala Val Val Ser Ile Leu Leu Leu
20          25          30

Ser Val Cys Phe Thr Val Ser Ser Val Val Pro His Asn Phe Met Tyr
35          40          45

Ser Lys Thr Val Lys Arg Leu Ser Lys Leu Arg Glu Tyr Gln Gln Tyr
50          55          60

His Pro Ser Leu Thr Cys Val Met Glu Gly Lys Asp Ile Glu Asp Trp
65          70          75          80

Ser Cys Cys Pro Thr Pro Trp Thr Ser Phe Gln Ser Ser Cys Tyr Phe
85          90          95

Ile Ser Thr Gly Met Gln Ser Trp Thr Lys Ser Gln Lys Asn Cys Ser
100         105         110

Val Met Gly Ala Asp Leu Val Val Ile Asn Thr Arg Glu Glu Gln Asp
115         120         125

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Phe Ile Ile Gln Asn Leu Lys Arg Asn Ser Ser Tyr Phe Leu Gly Leu  
 130 135 140  
 Ser Asp Pro Gly Gly Arg Arg His Trp Gln Trp Val Asp Gln Thr Pro  
 145 150 155 160  
 Tyr Asn Glu Asn Val Thr Phe Trp His Ser Gly Glu Pro Asn Asn Leu  
 165 170 175  
 Asp Glu Arg Cys Ala Ile Ile Asn Phe Arg Ser Ser Glu Glu Trp Gly  
 180 185 190  
 Trp Asn Asp Ile His Cys His Val Pro Gln Lys Ser Ile Cys Lys Met  
 195 200 205  
 Lys Lys Ile Tyr Ile  
 210

<210> 3  
 <211> 1227  
 <212> DNA  
 <213> Mus musculus  
 <220>  
 <221> CDS  
 <222> (146)..(775)  
 <223> coding sequence of mouse Dectin-2

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 <308> AF240357  
 <309> 2000-05-02  
 <313> (1)..(1227)

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 gaccttctga acatacacct caaca atg gtg cag gaa aga caa tcc caa ggg 172  
 Met Val Gln Glu Arg Gln Ser Gln Gly  
 1 5  
 aag gga gtc tgc tgg acc ctg aga ctc tgg tca gct gct gtg att tcc 220  
 Lys Gly Val Cys Trp Thr Leu Arg Leu Trp Ser Ala Ala Val Ile Ser  
 10 15 20 25  
 atg tta ctc ttg agt acc tgt ttc att gcg agc tgt gtg gtg act tac 268  
 Met Leu Leu Leu Ser Thr Cys Phe Ile Ala Ser Cys Val Val Thr Tyr  
 30 35 40  
 caa ttt att atg gac cag ccc agt aga aga cta tat gaa ctt cac aca 316  
 Gln Phe Ile Met Asp Gln Pro Ser Arg Arg Leu Tyr Glu Leu His Thr  
 45 50 55  
 tac cat tcc agt ctc acc tgc ttc agt gaa ggg act atg gtg tca gaa 364

Tyr	His	Ser	Ser	Leu	Thr	Cys	Phe	Ser	Glu	Gly	Thr	Met	Val	Ser	Glu		
		60					65					70					
aaa	atg	tgg	gga	tgc	tgc	cca	aat	cac	tgg	aag	tca	ttt	ggc	tcc	agc		412
Lys	Met	Trp	Gly	Cys	Cys	Pro	Asn	His	Trp	Lys	Ser	Phe	Gly	Ser	Ser		
	75					80				85							
tgc	tac	ctc	att	tct	acc	aag	gag	aac	ttc	tgg	agc	acc	agt	gag	cag		460
Cys	Tyr	Leu	Ile	Ser	Thr	Lys	Glu	Asn	Phe	Trp	Ser	Thr	Ser	Glu	Gln		
90					95					100					105		
aac	tgt	gtt	cag	atg	ggg	gct	cat	ctg	gtg	gtg	atc	aat	act	gaa	gcg		508
Asn	Cys	Val	Gln	Met	Gly	Ala	His	Leu	Val	Val	Ile	Asn	Thr	Glu	Ala		
				110					115					120			
gag	cag	aat	ttc	atc	acc	cag	cag	ctg	aat	gag	tca	ctt	tct	tac	ttc		556
Glu	Gln	Asn	Phe	Ile	Thr	Gln	Gln	Leu	Asn	Glu	Ser	Leu	Ser	Tyr	Phe		
			125					130					135				
ctg	ggt	ctt	tcg	gat	cca	caa	ggt	aat	ggc	aaa	tgg	caa	tgg	atc	gat		604
Leu	Gly	Leu	Ser	Asp	Pro	Gln	Gly	Asn	Gly	Lys	Trp	Gln	Trp	Ile	Asp		
	140					145						150					
gat	act	cct	ttc	agt	caa	aat	gtc	agg	ttc	tgg	cac	ccc	cat	gaa	ccc		652
Asp	Thr	Pro	Phe	Ser	Gln	Asn	Val	Arg	Phe	Trp	His	Pro	His	Glu	Pro		
	155					160					165						
aat	ctt	cca	gaa	gag	cgg	tgt	gtt	tca	ata	gtt	tac	tgg	aat	cct	tcg		700
Asn	Leu	Pro	Glu	Glu	Arg	Cys	Val	Ser	Ile	Val	Tyr	Trp	Asn	Pro	Ser		
170					175					180					185		
aaa	tgg	ggc	tgg	aat	gat	gtt	ttc	tgt	gat	agt	aaa	cac	aat	tca	ata		748
Lys	Trp	Gly	Trp	Asn	Asp	Val	Phe	Cys	Asp	Ser	Lys	His	Asn	Ser	Ile		
				190					195					200			
tgt	gaa	atg	aag	aag	att	tac	cta	tga	gtgcctgtta	ttcattaata							795
Cys	Glu	Met	Lys	Lys	Ile	Tyr	Leu										
			205														
tcttttaaagt	tcagacctac	caagaagcca	taactttcttg	gcctgtacat	ctgacagagg												855
ccgtttctttt	cctagccact	attcttttact	caaacagaat	gagccctttc	tcctttctgat												915
ggtttagagtt	ttgtcaactt	gacacaaact	agagtcacct	ggggagtagg	atcttcagct												975
aaggaattgc	ctctgtcagc	ttgaccagtc	agcatgtctg	ggggcatttt	cttgattaat												1035
gattgtttgta	agaggggtcca	ggtggtaagc	aaaggtgtta	aacctatgaa	gagcaagcca												1095
gggagcatca	tccatccatc	tctgccctca	ggttttctgcc	ccaggggtctt	gccctggttt												1155
ctttctatga	actgctgtta	cttgaaaagta	taagatgaat	aaacaatttc	atccaaaaaa												1215
aaaaaaaaaa	aa																1227

<211> 209  
<212> PRT  
<213> Mus musculus

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Arg Leu Trp Ser Ala Ala Val Ile Ser Met Leu Leu Leu Ser Thr Cys  
20 25 30

Phe Ile Ala Ser Cys Val Val Thr Tyr Gln Phe Ile Met Asp Gln Pro  
35 40 45

Ser Arg Arg Leu Tyr Glu Leu His Thr Tyr His Ser Ser Leu Thr Cys  
50 55 60

Phe Ser Glu Gly Thr Met Val Ser Glu Lys Met Trp Gly Cys Cys Pro  
65 70 75 80

Asn His Trp Lys Ser Phe Gly Ser Ser Cys Tyr Leu Ile Ser Thr Lys  
85 90 95

Glu Asn Phe Trp Ser Thr Ser Glu Gln Asn Cys Val Gln Met Gly Ala  
100 105 110

His Leu Val Val Ile Asn Thr Glu Ala Glu Gln Asn Phe Ile Thr Gln  
115 120 125

Gln Leu Asn Glu Ser Leu Ser Tyr Phe Leu Gly Leu Ser Asp Pro Gln  
130 135 140

Gly Asn Gly Lys Trp Gln Trp Ile Asp Asp Thr Pro Phe Ser Gln Asn  
145 150 155 160

Val Arg Phe Trp His Pro His Glu Pro Asn Leu Pro Glu Glu Arg Cys  
165 170 175

Val Ser Ile Val Tyr Trp Asn Pro Ser Lys Trp Gly Trp Asn Asp Val  
180 185 190

Phe Cys Asp Ser Lys His Asn Ser Ile Cys Glu Met Lys Lys Ile Tyr  
195 200 205

Leu

<210> 5  
<211> 237  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (1)..(237)  
<223> amino acid sequence of human DCIR

<300>  
<308> AJ133532  
<309> 1999-09-01  
<313> (1)..(237)

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			20					25					30			
Thr	Ala	Pro	His	Lys	Ser	Asn	Thr	Gly	Phe	Pro	Lys	Leu	Leu	Cys	Ala	
		35					40					45				
Ser	Leu	Leu	Ile	Phe	Phe	Leu	Leu	Leu	Ala	Ile	Ser	Phe	Phe	Ile	Ala	
	50					55					60					
Phe	Val	Ile	Phe	Phe	Gln	Lys	Tyr	Ser	Gln	Leu	Leu	Glu	Lys	Lys	Thr	
65					70				75						80	
Thr	Lys	Glu	Leu	Val	His	Thr	Thr	Leu	Glu	Cys	Val	Lys	Lys	Asn	Met	
			85					90						95		
Pro	Val	Glu	Glu	Thr	Ala	Trp	Ser	Cys	Cys	Pro	Lys	Asn	Trp	Lys	Ser	
		100						105					110			
Phe	Ser	Ser	Asn	Cys	Tyr	Phe	Ile	Ser	Thr	Glu	Ser	Ala	Ser	Trp	Gln	
		115					120					125				
Asp	Ser	Glu	Lys	Asp	Cys	Ala	Arg	Met	Glu	Ala	His	Leu	Leu	Val	Ile	
	130					135					140					
Asn	Thr	Gln	Glu	Glu	Gln	Asp	Phe	Ile	Phe	Gln	Asn	Leu	Gln	Glu	Glu	
145					150					155					160	
Ser	Ala	Tyr	Phe	Val	Gly	Leu	Ser	Asp	Pro	Glu	Gly	Gln	Arg	His	Trp	
			165						170					175		
Gln	Trp	Val	Asp	Gln	Thr	Pro	Tyr	Asn	Glu	Ser	Ser	Thr	Phe	Trp	His	

180                      185                      190  
 Pro Arg Glu Pro Ser Asp Pro Asn Glu Arg Cys Val Val Leu Asn Phe  
           195                      200                      205  
 Arg Lys Ser Pro Lys Arg Trp Gly Trp Asn Asp Val Asn Cys Leu Gly  
           210                      215                      220  
 Pro Gln Arg Ser Val Cys Glu Met Met Lys Ile His Leu  
           225                      230                      235

<210> 6  
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 <213> Artificial Sequence

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 <223> basic unit of a linking peptide

<400> 6

Gly Gly Gly Gly Ser  
 1                      5

<210> 7  
 <211> 24  
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<220>  
 <223> primer

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24

<210> 8  
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Asn Ser Ser Tyr  
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<400> 11

Asn Val Thr Phe  
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<400> 13

Asn Glu Ser Ser  
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<400> 14

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<400> 15



Lys Lys Thr Thr

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<211> 4

<212> PRT

<213> Homo sapiens

<400> 16

Thr Arg Glu Glu

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<211> 4

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<213> Homo sapiens

<400> 17

Ser Ser Glu Glu

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<210> 18

<211> 4

<212> PRT

<213> Mus musculus

<400> 18

Ser Thr Lys Glu

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<210> 19

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Ser Thr Ser Glu

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<210> 20

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Thr Glu Ala Glu

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<400> 21

Ser Ile Cys Glu

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<210> 22

<211> 4

<212> PRT

<213> Homo sapiens

<400> 22

Thr Tyr Ala Glu

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<210> 23

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<212> PRT

<213> Homo sapiens

<400> 23

Thr Thr Lys Glu

1

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<211> 4

<212> PRT

<213> Homo sapiens

<400> 24

Thr Thr Leu Glu

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<210> 25

<211> 4

<212> PRT

<213> Homo sapiens

<400> 25

Ser Trp Gln Asp

1

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<211> 4

<212> PRT

<213> Homo sapiens

<400> 26

Ser Glu Lys Asp

1

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<400> 27

Thr Gln Glu Glu  
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<210> 28  
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<222> (1)..(8)  
<223> Tyrosine kinase phosphorylation site in human BDCA-2

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<213> Homo sapiens

<400> 29

Ser Val Cys Glu  
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<210> 30  
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<400> 30

Ser Val Cys Glu  
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<213> Mus musculus

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<222> (1)..(9)  
<223> Tyrosine kinase phosphorylation site in mouse dectin-2

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Arg Arg Leu Tyr Glu Leu His Thr Tyr  
1 5

<210> 32

<211> 4

<212> PRT

<213> Homo sapiens

<400> 32

Gly Gly Arg Arg  
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<210> 33

<211> 6

<212> PRT

<213> Mus musculus

<220>

<221> UNSURE

<222> (1)..(6)

<223> N-myristylation site in mouse dectin-2

<400> 33

Gly Val Cys Trp Thr Leu  
1 5

<210> 34

<211> 6

<212> PRT

<213> Mus musculus

<220>

<221> UNSURE

<222> (1)..(6)

<223> N-myristylation site in mouse dectin-2

<400> 34

Gly Thr Met Val Ser Glu  
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<210> 35

<211> 6

<212> PRT

<213> Mus musculus

<220>

<221> UNSURE

<222> (1)..(6)

<223> N-myristylation site in mouse dectin-2

<400> 35

Gly Cys Cys Pro Asn His  
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<210> 36

<211> 6

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (1)..(6)

<223> N-myristylation site in human DCIR

<400> 36

Gly Ile Asn Thr Ala Ser  
1 5

<210> 37

<211> 6

<212> PRT

<213> Unknown

<220>

<223> consensus ITIM motif

<220>

<221> misc\_feature

<222> (2)..(5)

<223> consensus immunoreceptor tyrosine-based inhibitory motif  
(ITIM motif) (I/V)XYXX(L/V),  
amino acid "X" from position 2, 4 and 5 can be any amino acid

<220>

<221> misc\_feature

<222> (1)..(1)

<223> amino acid "X" at position 1 can be either amino acid "I " or "V"

<220>

<221> misc\_feature

<222> (6)..(6)

<223> amino acid "X" at position 6 can be either amino acid "L " or "V"

<400> 37

Xaa Xaa Tyr Xaa Xaa Xaa  
1 5

<210> 38

<211> 6

<212> PRT  
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<220>  
<221> UNSURE  
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<223> immunoreceptor tyrosine-based inhibitory motif (ITIM motif) in  
DCIR

<400> 38

Ile Thr Tyr Ala Glu Val  
1 5

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AA  
cont.